

CLAIMS:

1. A method for detecting the presence and uniformity of a lubricious coating on a medical device comprising the steps of:

5 a) preparing a mixture of a biocompatible at least one hydrophilic fluorescing agent and at least one hydrophobic lubricant;

b) applying said mixture to the surface of a medical device to form a coating capable of exhibiting fluorescence; and

c) subjecting the surface of the medical device to a source of energy capable of inducing a fluorescent emission.

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2. The method of Claim 1 further comprising the step of observing the fluorescent emission to determine the location and uniformity of said lubricant.

15 3. The method of Claim 1 wherein said fluorescing agent is a fluorescein, triarylmethane, rhodamine, a derivative thereof, and mixtures thereof.

3 4. The method of Claim 1 wherein said hydrophilic dye is 5-carboxyfluorescein, 6-carboxyfluorescein, fluorexon, lissamine green, indocyanine green, rose bengal or mixture thereof.

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4 5. The method of Claim 1 wherein said hydrophobic lubricant is a silicone based lubricant.

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25 6. The method of Claim 1 wherein said hydrophobic lubricant is a polydimethylsiloxane.

6 7. The method of Claim 6 wherein said polydimethylsiloxane is utilized in combination with a crosslinkable silicone.

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8. The method of Claim 1 wherein said mixture further comprises a surfactant.

8 9. The method of Claim 8 wherein said surfactant is biocompatible.

9 10. The method of Claim 8 wherein said surfactant is nonionic.

10 11. The method of Claim 10 wherein said surfactant is an ethylene oxide/propylene oxide block copolymer.

11 12. The method of Claim 1 wherein said mixture is prepared using a cosolvent blend.

12 13. The method of Claim 12 wherein said cosolvent blend comprises at least one alcohol and at least one straight chain hydrocarbon.

13 14. The method of Claim 13 wherein said at least one alcohol is isopropanol and said at least one hydrocarbon is heptane, hexane or a mixture thereof.

15 15. A method for detecting the presence of a lubricious coating on a medical device comprising the steps of:

- providing a fluorescinated lubricant wherein said lubricant comprises fluorescent groups on the lubricant molecules;
- applying said fluorescinated lubricant to a surface of a medical device to form a coating capable of exhibiting fluorescence; and
- subjecting the surface of the medical device to a source of energy capable of inducing fluorescence.

25 16. A medical device comprising a lubricious coating, said coating comprising a hydrophobic lubricant and a hydrophilic fluorescent dye said coating fluorescing upon exposure to an energy source capable of inducing fluorescence.

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17. The medical device of Claim 16 wherein said medical device is an intraluminal medical device.

18. The medical device of Claim 16 wherein said medical device is a balloon catheter.

19. The medical device of Claim 18 wherein said balloon catheter further comprises at least one retaining sleeve comprising an inner surface and an outer surface.

20. The medical device of Claim 19 wherein said retaining sleeves comprise said lubricious coating at ~~at~~ least said inner surface of said retaining sleeve.

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10 21. A method for determining the presence of a lubricious coating on an inner surface of a stent retaining sleeve comprising the steps of:

- adding at least one fluorescent agent to at least one lubricant;
- applying said lubricant to said inner surface of said stent retaining sleeve; and
- 15 exposing said inner surface of said stent retaining sleeve to a source of energy capable of inducing fluorescence.

22. The method of Claim 21 further comprising the step of observing the fluorescence to determine the presence, location and uniformity of said lubricant.

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23. A stent delivery device comprising a stent delivery catheter which is equipped with at least one stent retaining sleeve, the at least one stent retaining sleeve being further characterized as having an inner surface and an outer surface, said sleeve having a lubricious coating comprising a fluorescent dye disposed at least on said inner surface.

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24. The stent delivery device of Claim 23 wherein said lubricious coating comprises either of a hydrophilic lubricant or a hydrophobic lubricant.

30 25. The stent delivery device of Claim 24 wherein said lubricious lubricant is a polydimethylsiloxane.

10 26. The stent delivery device of Claim 25 wherein said lubricious lubricant also comprises a crosslinkable material.

15 27. The stent delivery device of Claim 23 wherein said fluorescent dye is hydrophilic.

20 28. The stent delivery device of Claim 23 wherein said at least one fluorescing agent is a fluorescein, rhodamine, triarylmethane, derivative thereof, or mixture thereof.

25 29. The stent delivery device of Claim 28 wherein said at least one fluorescing agent is 5-carboxyfluorescein, 6-carboxyfluorescein, fluorexon, lissamine green, rose bengal, indocyanine green or mixture thereof.

30 30. The stent delivery device of Claim 23 wherein said lubricant is a hydrogel.

35 31. A lubricious coating for use on a medical device, comprising:  
a) at least one hydrophobic lubricious compound; and  
b) at least one hydrophilic fluorescing agent.

40 32. The coating of Claim 31 further comprising at least one surfactant.

45 33. The coating of Claim 31 prepared by mixing said hydrophobic lubricious compound and said hydrophilic fluorescing agent in a cosolvent blend.

50 34. The coating of Claim 31 wherein said lubricious compound is silicone based.

55 35. The coating of Claim 31 wherein said lubricious compound is polydimethylsiloxane.

60 36. The coating of Claim 31 wherein said at least one fluorescing agent is a fluorescein, rhodamine, triarylmethane, derivative thereof or mixture thereof.

37. The coating of Claim 36 wherein said at least one fluorescing agent is 5-carboxyfluorescein, 6-carboxyfluorescein, indocyanine green, lissamine green, rose bengal, or mixture thereof.

5 38. A lubricious coating for use on medical devices comprising a fluorescenated lubricant.